

**What is claimed is:**

1. A device for setting a hysteresis characteristic with respect to an input signal, said device comprising:

a voltage dividing circuit for dividing a voltage of said input signal into a first voltage and a second  
5 voltage which is lower than said first voltage; and

a computer including a first port to which said first voltage is given, and a second port to which said second voltage is given, said computer performing a predetermined software process to set a hysteresis  
10 characteristic;

wherein said computer performs a software process of:

when said voltages given to said first and second ports are equal to or higher than a predetermined  
15 threshold, determining said input signal to have a high level;

when said voltage given to said first port is equal to or higher than the threshold and said voltage given to said second port is lower than the threshold, making a same  
20 determination as a immediately preceding determination; and

when said voltages given to said first and second ports are lower than the predetermined threshold, determining said input signal to have a low level.

2. The device for setting a hysteresis characteristic

according to Claim 1,

wherein said voltage dividing circuit includes first and second resistors which are connected to each other in series,

wherein a first end of said first resistor is connected to said first port, a second end of said first resistor is connected to a first end of said second resistor and said second port, said input signal is input to said first end of said first resistor, and

wherein a second end of said second resistor is grounded.

3. A device for setting a hysteresis characteristic with respect to an input signal, said device comprising:

a pre-processing section for reducing noise of said input signal;

a voltage dividing section for dividing a voltage of said pre-processed input signal into a first signal and a second signal;

a characteristic setting section including a first comparator for comparing said first signal with a predetermined threshold, and a second comparator for comparing said second signal with said predetermined threshold, for setting a hysteresis characteristic based on results of said first comparator and second comparator;

wherein said voltage dividing section divides said

15 pre-processed input signal so that a voltage of said second  
signal is lower than a voltage of said first signal, and  
wherein said setting section sets a hysteresis  
characteristic in such manner that:  
when both of said first signal and said second  
20 signal are equal to or higher than said predetermined  
threshold, said setting section outputs a high level  
signal;  
when both of said first signal and said second  
signal are lower than said predetermined threshold, said  
25 setting section outputs a low level signal;  
when said first signal is equal to or higher than  
said predetermined threshold and said second signal is  
lower than said predetermined threshold, said setting  
section outputs a same level signal as a immediately  
30 preceding output signal.

4. The hysteresis characteristic setting device  
according to Claim 3,

wherein said voltage dividing section includes at  
least two resistors connected in series with each other.

5. The hysteresis characteristic setting device  
according to Claim 3,

wherein said voltage dividing section includes  
three resistors connected in series.

6. The hysteresis characteristic setting device according to Claim 3,

wherein said pre-processing section is a low-pass filter.

7. A method for setting hysteresis characteristic in respect to an input signal, said method comprising the steps of:

pre-processing for reducing noise of said input  
5 signal;

voltage dividing for dividing said pre-processed input signal into a first signal and a second signal which is lower than said first signal;

first comparing for comparing said first signal  
10 with a predetermined threshold;

second comparing for comparing said second signal with said predetermined threshold; and

characteristic setting for setting hysteresis characteristic based on results of said steps of first  
15 comparing and second comparing;

wherein, in said characteristic setting step,

said hysteresis characteristic of said input signal is defined as high level of output signal in case that said first signal is equal to or higher than said predetermined  
20 signal in result of said first comparing step and said

second signal is equal to or higher than said predetermined threshold in result of said second comparing step,

said hysteresis characteristic of said input signal is defined as low level of output signal in case that said first signal is lower than said predetermined threshold in result of said first comparing step and said second signal is lower than said predetermined threshold in result of said second comparing step, and

said hysteresis characteristic of said input signal is defined as same as an immediately preceding output signal in case that said first signal is equal to or higher than said predetermined threshold in result of said first comparing step and said second signal is lower than said predetermined threshold in result of said second comparing step.

8. The method according to Claim 7, further comprising the step of:

recording for writing said output signal of said characteristic setting step into a memory when said output signal is difference from a previous output signal.

9. The method according to Claim 7,

wherein said voltage dividing step is executed by at least two resistors connected in series with each other.

10. The method according to Claim 7,  
wherein said pre-processing step is executed by a  
low-pass filter.